



TECHNICAL DATA

Erapol EMD85A

HIGH PERFORMANCE MDI BASED ELASTOMER

EMD85A is high performance hot castable grade, MDI polyurethane elastomer based on PTMEG polyols. This product is an elastomer with outstanding toughness and abrasion properties, which is characteristic of MDI systems. This product has been specifically designed for the rebound properties and high hardness for skateboard wheels.

EMD85A is normally cured with 1,4 Butane Diol to produce an 85 Shore A elastomer.

PRODUCT SPECIFICATION

	Part A
Appearance	Milky White translucent liquid
Specific Gravity @ 25°C	1.05 ± 0.03
Viscosity @ 80° C (cps)	1600 ± 400
% NCO	6.50 + 0.25

MIXING AND CURING CONDITIONS

Mix Ratio, (Part A / Part B) (pbw)	100 / 6.6
Temperature of Prepolymer (°C)	70-80
Temperature of 1,4 Butane Diol (°C)	25-30
Mixing Time (minutes)	1-2
Pot Life @ 80°C (minutes)	4-5
Mould Temperature (°C)	100
Oven Temperature (°C)	100
Demould Time (minutes)	60
Post Cure Time @ 80-90°C (hours)	16

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TYPICAL CURED PROPERTIES

The properties presented below are an average, based on several determinations and should not be used for specification purposes.

Hardness (Shore A)	85 ± 3
Abrasion (DIN) (mm³)	45
Resilience (DIN) (%)	67
Tensile Strength (MPa)	32
Elongation (%)	700
Angle Tear Strength (DIE C) (kN/m)	103
Trouser Tear Strength (DIE C) (kN/m)	30
Cured Density (g/cm³)	1.1
Compressive Stress (MPa) (10% deformation)	2.0

EMD85A can be mixed by hand and can be machine dispensed also.

NOTE: Both Part A and Part B components are moisture sensitive. Once opened, containers should be purged with nitrogen, if they are to be stored for a period of time.

Below 15°C Part A will appear as a white wax like substance. The Part A can be melted overnight by placing the drum or pail in a fan forced hot box at 70-80°C. Care should be exercised in keeping moisture away from the part A. Do not exceed a temperature of 80°C when melting out the Part A.

PROCESSING PROCEDURE

1. Carefully weigh the correct amount of part A into a container and heat to 70-80°C and thoroughly degas under vacuum at 1-5 mmHg.
2. Carefully weight correct proportion of the 1,4 Butane Diol into part A and, mix thoroughly. Be careful not to entrap air whilst mixing. (If there are a lot of bubbles in the sample at this stage, the mixed material can be degassed again.)
3. Pour the mixed materials into moulds that have been preheated to 100°C and pre-coated with release agent, being careful to avoid trapping air.
4. Allow casting to cure before demoulding.

HANDLING PRECAUTIONS

EMD85A should be used in well-ventilated area. Avoid breathing in vapours and protect skin and eyes from contact.

In case of skin contact remove excess, wash with soap and water. For eye contact, immediately flush with water for at least 15 minutes. Call a physician.

If nose, throat or lungs become irritated from breathing in vapours, remove exposed person to fresh air. Call a physician.

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